

REMARKS

In the above-referenced Office Action, the Examiner rejected claims 1-24 under 35 U.S.C. §102(b) as being anticipated by Miller et al. (U.S. Patent No. 6,257,693).

Specifically, regarding claim 1, the Examiner alleged that Miller et al. discloses a method for processing a print job comprising modifying a raster operation function to have fewer variables than originally specified by said print job.

Independent claim 1 requires, inter alia, modifying a raster operation function to have fewer variables than originally specified by the print job. Applicants assert that the cited reference fails to disclose or suggest the claimed invention. Miller et al. discloses a method for obtaining a hardcopy output of an image by initially generating a page description data that contains statistics of the image to be printed. The page description data is then used for characterizing the image based on type of elements in the image (i.e. text, graphics, or photograph), attributes of these elements (color, size), etc. The characterized data thus obtained is stored as a first characterization data. The first characterization data is then used as an input to a modifying page description step 92 that modifies the page description data based on the type of printer, the required color combination in the output image (black to color bleed control) and the line widths required in printed image. The modifying page description step 92, can also process photographic images with digital filters to sharpen these images, enhance their edges, and remove noise from these images. See col. 7, line 37 to col. 8, lines 12. After the modifying page description step completes the modification process the original page description data is replaced by this modified page description data. This modified page description data is then supplied to a rasterization page description step that performs the rasterization of this page description data. See Fig. 3A.

The Examiner alleged on page 2 of the Office Action that the modifying page description step 92 of the cited reference discloses the claimed modifying of raster operation function. Rather, as discussed above with respect to Miller et al., the rasterization page description step 92 is being performed after this modifying page description step 92 and hence the modified page description data step is not modifying a

raster operation function as required in the claimed invention. Thus, the cited reference fails to disclose the claimed invention.

Further, the Examiner has specifically alleged that the processing of photographic images with digital filters to sharpen image, enhancing edges, and removing noise from the image by the modifying page description step 92 in Miller et al. can be considered as modification of image and also has fewer variables as compared to the original image presentation of the raster data being rendered. However, in the cited reference, it is noise that is being removed from the original image data, whereas in the claimed invention it is the number of variables of the raster operation function being reduced, which does not remove a part of the image data as in Miller et al. Thus, claim 1 is allowable as the reference fails to disclose or suggest the claimed invention.

Independent claim 10 is directed to a method for processing a PCL print job that specifies a raster operation function that requires, inter alia, determining whether the raster operation function has one or more variables. In Miller et al., the modified page description data as discussed above is provided as an input to a rasterize page description step that rasterizes the page image. See Fig. 3. Further, the rasterize page description step (rasterization step) also receives a rasterization control signal from a control rasterization parameters step that modifies the rasterize page description step based on the type of elements in the image (text, image, or photograph), type of color adjustment required for each element in the image, and desired border colors and intensity required for elements in the image. See col. 7, lines 37-43, col. 8, lines 13-63 and Fig. 3. Assuming, arguendo, that these parameters (i.e. type of elements, color adjustment, desired border color) being used in the control rasterization parameter step of the cited reference as the variables of the raster operation function of the claimed invention, in Miller et al. depending on the type of variables the rasterization step is being modified. See col. 8, lines 13-19. However, Miller et al. fails to disclose or suggest determining the count of these variables (i.e. the number of variables whether one or more) that are being used by the control rasterization parameter step for modifying the rasterize page description, as in the claimed invention. Thus, claim 10 is allowable over the cited reference.

Claims 11-17, depending from allowable claim 10, are allowable for at least the same reasons. Furthermore, these claims have additional limitations that make them allowable over the cited reference. For example, claim 11 is directed to a method for processing a PCL print job that specifies a raster operation function that requires, inter alia, modifying the function to have fewer variables than specified by said PCL print job. As discussed above, the modification in the control rasterization step modifies the rasterization process based on the object type (text, graphics or photograph) to obtain a rasterized image. Rather, in the claimed invention, the modification process is for reducing the number of variables than specified by the print job. Thus, this claim is allowable for this additional reason.

Independent claims 18 and 21 require, inter alia, determining whether the raster operation function has one or more variable and, if that the function has one or more variables, modifying the function to have fewer variables. As shown above the cited reference fails to disclose determining whether the raster operation has one or more variable. It has also been shown above that the cited reference fails to disclose modifying the raster operation function to have fewer variables. Thus, claims 18 and 21 are allowable.

Claims 22-24, depending from allowable independent claim 21, are allowable for at least the same reasons. Further, these claims have additional limitations that make them allowable over the cited references. For example, claim 22 requires, inter alia, setting a flag or not in response to said modifying. The cited reference fails to disclose this element of the claimed invention. Miller et al. discloses that a rasterized image is obtained from the rasterization step discussed above the rasterized image data is then extracted and is used to obtain a second characterization data. This second characterization data is then provided as input to an adjust pixel image step that generates a pixel adjustment control signal for post processing the rasterized page image. The pixel adjustment control signal performs post processing modifications on the rasterized image depending on the attributes of printer being used. See col. 9, lines 8-24. In the Office Action on Page 5 the Examiner has alleged that this adjust pixel image step as disclosing the step of setting a flag in response to modifying of the claimed invention. However, in Miller et al. the adjust pixel step is a post processing step on the rasterized image or a

step performed after the rasterization step by which the rasterized image is obtained, rather in the claimed invention as discussed above the modifying step is being performed on a raster operation function and not on a post rasterization step. Further, Miller et al. also fails to disclose or suggest a flag that is set in response to modifying either in the adjust pixel image step that is being alleged by the Examiner or in any other part of the cited reference, as required by the claimed invention. Thus, this claim is allowable for this additional reason.

Claim 23 requires, inter alia, determining whether the raster operation function requires a hard processing operation or not. The Examiner has alleged that the modifying page description parameter in Miller et al., discloses the limitation of this claim. However, as discussed in claim 1, the modifying page description data modifies the page description data according to the type of hard copy print device being used, required black to color bleed, adjusting the line widths and further the modifying page description step processes the image to remove noise and sharpen edges. See col.7, lines 44-57. Thus, there is no determination in the page description data whether a function require a hard processing operation or not, as required by this claim. Thus, this claim is allowable for these additional reasons.

Applicants assert that, in light of the foregoing remarks, this application is in condition for allowance and early passage of this case to issue is requested. The Examiner is invited to telephone the undersigned in the event the Examiner would like to discuss the merits of the application or this Response.

If there are any other fees not accounted for above, the assignee of present application, Lexmark International, Inc., hereby authorizes the Commissioner to charge any such fees, including any extension of time fees, to the account of Lexmark International, Inc., Deposit Account No. 12-1213.

Respectfully submitted,



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